FEWS NET
FAMINE EARLY WARNING SYSTEMS NETWORK

UKRAINE Targeted Analysis

September 30, 2022

The following report on Ukraine is a targeted analysis conducted by the FEWS NET Early Warning Team in response to ongoing events in the region. FEWS NET does not have a presence in Ukraine and does not cover Ukraine through the standard mechanisms used for monitoring and projecting food insecurity in our 30 reporting countries. As such, analyses on Ukraine are based on available secondary data and analysis. Updated analyses will be produced on an ad hoc basis and can be found here.

Key Messages

In Ukraine:

- Economic activity has improved and domestic supply chains have recovered relative to the start of the conflict. This has facilitated the resumption of business activity and improvement in household access to income-earning opportunities in many areas, though economic activity remains significantly depressed relative to pre-invasion levels. Though the future of the conflict remains uncertain, the Ukrainian economy is expected to continue its trajectory of gradual recovery through May 2023 alongside significant international support and improved domestic supply chains.
- Through May 2023, already elevated domestic prices are likely to continue rising despite the overall trend of relative economic recovery. Additionally, high fuel prices will further strain households' purchasing power during the winter months. Some poor households currently facing Stressed (IPC Phase 2) outcomes will likely exhaust available coping strategies such as spending savings, borrowing, and reducing essential expenditures. However, this number is expected to be limited due to expanded government social support and humanitarian interventions in the country.
- Currently, worst-affected poor households — including poor farmers who are struggling with below-average income levels and poor urban households that depend on informal employment and/or lower-wage jobs — are likely Stressed! (IPC Phase 2!) if they receive assistance or in Crisis (IPC Phase 3) if they do not receive assistance. Of the estimated 30 million people remaining in Ukraine, an estimated **1-2.49 million people (3-8 percent of those in the country)** are likely in immediate need of humanitarian food assistance to prevent food consumption gaps and damage to livelihoods. The population in need is expected to increase within this range throughout the projection period due to declining purchasing power. Most of those in need are located in conflict-affected areas where disruptions to income-earning activity, interruptions to supply chains, and damage to essential infrastructure, including water and heat, have occurred.

Globally:

- The effects of the war in Ukraine have driven up essential food and non-food prices around the world, further reducing poor households' ability to afford their basic kilocalorie needs. These impacts coincide with the impacts of conflict and drought in many countries, including in the Horn of Africa, where a fifth consecutive poor rainfall season in late 2022 will continue to drive unprecedented drought conditions. Households face not only extensive crop and livestock losses due to local shocks but also steep increases in imported food prices, leading to warnings of Famine (IPC Phase 5).
- Global commodity prices — including for food, fertilizer, and fuel — are likely to remain elevated throughout the projection period. In many already food-insecure countries, farmers are unable to afford essential agricultural inputs, and high fertilizer prices are likely to reduce planted acreage and yields in the coming production seasons.
- In the current environment of high global assistance needs and inadequate resources for assistance, the world is also facing prospects for an impending global recession, continued high levels of inflation, and more frequent extreme weather events and water crises due to the impacts of climate change. The continuation of a status quo defined by a limited emergency response will not prevent but rather permit the ongoing spiral of eroding resilience and, overall, rising levels of acute food insecurity amid the compounding effects of future shocks. It is essential that donor countries urgently direct efforts toward addressing the root causes of food insecurity — particularly conflict and climate change — and think more creatively about how to address acute food needs while supporting local livelihoods and economies.

For background information on 1) the demographics and livelihoods of Ukrainians; 2) Ukrainian agricultural production and exports; and 3) infrastructure and logistics in Ukraine, please refer to pages 3-7 of FEWS NET's initial analysis found here.

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Current status of conflict

As of late September 2022, Ukrainian forces had reportedly recaptured 6,000 square kilometers of territory in the northeastern Kharkiv region (Figure 1) after forcing a significant Russian withdrawal. However, Russian military forces still controlled large parts of the eastern Donbas region (including Luhansk and Donetsk *oblasts*), much of Zaporizhzhia *oblast*, and most of Kherson *oblast*. Ukrainian forces continue to work toward the re-capture of Kherson city by targeting infrastructure and Russian transportation and logistics facilities in efforts to force a withdrawal.

Figure 1. Map of territorial control in eastern Ukraine as of September 21, 2022

Source: *Institute for the Study of War & BBC*

In an August 29 interview, the head of the Ukrainian Ministry of Infrastructure stated that 24,000 km of roads had been damaged in conflict-affected areas and that 300 bridges on public roads had been destroyed (though these figures were also reported by news media as early as June), with temporary solutions being constructed for only 50 of the destroyed bridges. He further stated that damage to infrastructure—including residential infrastructure—totaled an estimated 95-100 billion USD, though precise figures are not available due to challenges in estimation and access constraints. Given damage from the conflict, Ukraine's State Road Agency has halted work on long-term projects and is focusing on repairing critical roads and bridges. Meanwhile, Oleksandr Kamyshin, the head of the state-owned Ukrainian rail system, reported in mid-August that railway repairs were being prioritized. Repairs that previously took weeks are now completed within a few hours, given the importance of the railway's role in military and humanitarian efforts. He stated that at least 161 railway workers had been killed since the start of the invasion in February.

On July 22, Ukraine and Russia signed an agreement to allow for the resumption of exports through three of Ukraine's 17 main seaports: Odesa, Chornomorsk, and Pivdennyi. Prior to this, Ukraine's Black Sea ports had been under blockade by the Russian navy since the start of the invasion on February 24. As of early September, 86 ships carrying two million tons of agricultural commodities had been dispatched using the safe corridor established under the deal.

Though the pace of exports through Ukrainian seaports has been continuously increasing since the deal, exports from Ukraine remain slower than last year. From September 1 to 19, Ukraine exported 3.9 million tons of agricultural commodities, according to the Ministry of Agrarian Policy and Food, with maize contributing 32 percent of the exports, wheat contributing 26 percent, and sunflower oil contributing 9 percent. More than half (2.2 million tons) was exported through the safe corridor, representing a 29 percent increase from the 1.7 million tons exported through the safe corridor throughout August. In all of September, 6.9 million tons of agricultural commodities were exported, representing a 41 percent increase compared to August. Additionally, the Ministry of Agrarian Policy and Food reported that 8.6 million tons of cereals and legumes had been exported in the 2022/23 marketing year[1] to date, half of which (4.3 million tons) was exported in September 2022 alone. However, these totals are 40 percent and 24 percent lower, respectively, than the corresponding totals of the prior year.

Current food security situation in Ukraine

Civilian impact and displacement

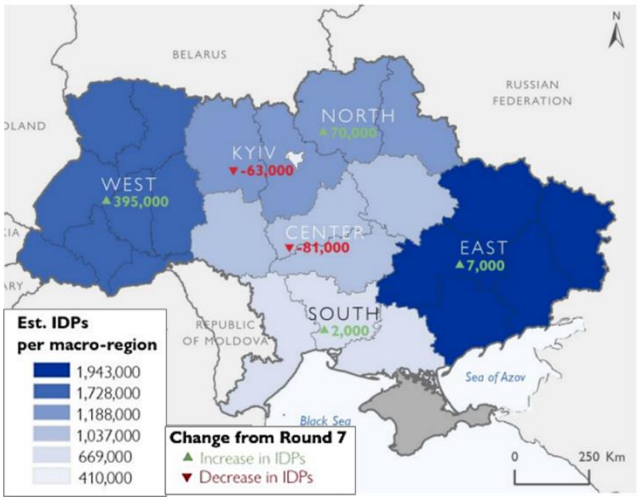
UNCHR estimated in mid-September that there were 7.3 million Ukrainian refugees present across Europe, with the largest populations in Poland, Germany, and the Czech Republic. Over 4 million of these have registered for temporary protection. In general, it is expected that the international community in the region — including response organizations and citizens — has been successful in providing immediate food and shelter to most refugees fleeing Ukraine. According to a rapid assessment conducted by the IOM between August 17 and 23 (Round 8), an estimated 7 million people are internally displaced in Ukraine. This figure is lower than the peak of approximately 8 million estimated in early May but has increased in the past two survey rounds since late June. Over half (4.2 million) of those currently internally displaced are originally from

[1] Marketing year begins on July 1

the East region. However, the displaced population is spread across the country (Figure 2). Only around a quarter (1.9 million) of those internally displaced are currently located in the East region, with many in the West (1.7 million), the North (1.2 million), and the Center (1.0 million), in addition to the South (0.7 million) and Kyiv (0.4 million).

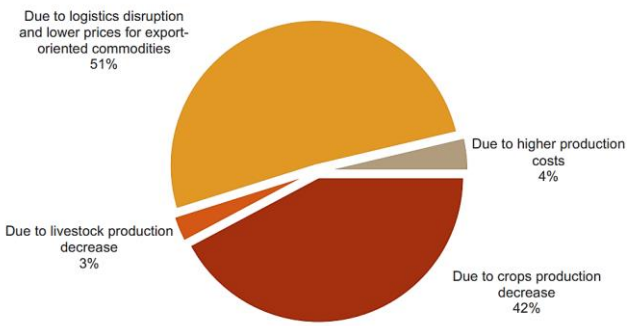
Many displaced households have been separated from typical income-earning and livelihood activities, threatening their ability to meet their needs. Among the surveyed displaced respondents, 44 percent reported that they were not earning any money, while only 31 percent of respondents aged 18-64 reported that they were involved in paid work at the time of the assessment. Twenty-four percent reported that monthly financial assistance for displaced households was their primary source of income. Over 90 percent of those surveyed had adopted a coping strategy in response to insecurity and reduced incomes. The most commonly reported strategies were spending savings (75 percent), reducing food expenditures (68 percent), reducing essential non-food expenditures (67 percent), and reducing healthcare expenditures (54 percent). Given the types of coping strategies reported, most displaced households are likely able to meet their essential food and non-food needs. However, some of the poorest displaced households are likely unable to meet their essential needs without engaging in unsustainable coping. For example, 12 percent of respondents reported that they skipped paying rent, though it is possible that some households did this due to their displacement status or other factors related to the war rather than due to an inability to afford rent alongside other essential needs.

Figure 2. Estimated current location of internally displaced people by macro-region as of the August 17 to 23 assessment period



Source: *IOM*

Figure 3. Estimated losses to the agricultural sector in the first three months of the invasion



Source: *Kyiv School of Economics*

According to the same IOM rapid assessment, the number of previously displaced households (either within Ukraine or abroad) who had returned to their locations of origin by late August had reached 6.0 million. This figure represents 20 percent of all non-displaced respondents. The largest share of returnees (50 percent) reported returning from another *oblast* within Ukraine, while around 35 percent reported returning from a location within their home *oblast* and around 15 percent reported returning from another country. Approximately 80 percent of returnees are employed or receive pension payments, with the remaining unemployed. However, 28 percent reported they are not currently earning any money, and 42 percent reported earning less money than before the war. Fifty-seven percent of those employed or self-employed reported working fully online or remotely.

Economic and income-earning activity

Ukraine's economy has been badly damaged by the war, due to direct damages, disruptions to supply chains and exports, disruptions to the labor force related to casualties and displacement, reduced investment, and other reductions in productivity. Foreign direct investment fell by over 93 percent in the first seven months of 2022. Though economic activity has gradually improved since April, the World Bank projects that real GDP will decline by 35 percent in 2022. The Central Bank devalued the currency in July to protect foreign currency reserves, placing further pressure on domestic prices. By the end of July, international reserves had fallen to 22.4 billion USD, down from 29 billion USD before the war. However, donor support in August boosted reserves to 25.4 billion USD. The direct impacts of conflict and contraction of the economy continue to reduce income-earning opportunities for many poor households, especially in conflict-affected areas. According to the World Bank, poverty in Ukraine as measured by the global poverty line (6.85 USD per person per day, 2017 PPP) is projected to increase from 5.5 percent in 2021 to 25 percent in 2022.

According to the Kyiv School of Economics' Agricultural War Damages Review, damages (defined as the destruction of tangible

assets and inventories) to Ukraine's agricultural sector totaled an estimated 4.3 billion USD in the first three months of the invasion, while losses (forgone revenue due to higher production costs and reduced production, among others) totaled 23.3 billion USD. About half of damages (over 2.1 billion USD) were due to damage to farmland and winter crops, mainly characterized by direct physical damage and the presence of mines. This includes damage to irrigation infrastructure, which is most developed in Ukraine's southern regions, totaling an estimated 225 million USD. Damage to machinery contributed 22 percent of the total, followed by damage to stored products (14 percent), storage facilities (6 percent), and livestock (3 percent). Due to the hostilities and farmers' inability to care for them, livestock deaths are estimated at 42,000 sheep and goats, 92,000 cattle, 258,000 pigs, and 5.7 million poultry, with total damage exceeding 136 million USD. However, other available estimates of livestock deaths are notably lower.

Meanwhile, of the 23.3 billion USD in estimated losses, about half of all losses were due to logistics disruptions and lower prices for commodities that are typically exported, a trend related to the accumulation of domestic stocks during the blockade of the Black Sea (Figure 3). Reduced crop production contributed 42 percent of the total, though this assumed a 33 percent reduction in wheat production, a 32 percent reduction in sunflower production, a 31 percent reduction in barley production, and an 18 percent reduction in maize production compared to record 2021 levels, which reflects a worse scenario than the most recent estimates from USDA. Estimated losses to producers contributed 4 percent of the total, due to higher diesel prices (480 million USD in losses) and higher fertilizer prices (379 million USD in losses). Estimated losses from two years of reduced production in the livestock sector contributed 3 percent of total losses (682 million USD). Ukraine's metallurgy sector is also suffering from reduced export capacity and the destruction of Ukraine's largest factories (Azovstal and Illyich Iron and Steel Works). Total iron and steel exports from March to July 2022 were over 70 percent lower than the same time last year.

Progress of the agricultural season

The winter harvest of wheat, barley, and rapeseed (Figure 4) concluded by mid-September. A total of 26.1 million tons of grain and pulses were harvested from non-occupied areas, including 19.2 million tons of wheat and 5.5 million tons of barley. Meanwhile, production of rapeseed totaled 3.1 million tons. Though these totals do not include production from Crimea, Donetsk, Luhansk, Zaporizhzhia, and Kherson, satellite imagery confirmed that harvesting was ongoing in these areas as of late August, according to USDA. However, harvested area is expected to be lower in these areas due to direct damage, access constraints from active conflict and the presence of mines, and abandoned land given the lack of fuel or laborers.

Harvesting of maize and sunflower also started by early September. As of September 30, 1.6 million tons of sunflower seed and 125,800 tons of maize had been harvested. According to USDA, crop conditions in the western maize-growing regions generally improved in August due to favorable rainfall and minimal heat stress and are above-average in most areas. According to USDA production estimates published in mid-September, which do include production from occupied territories, wheat production in the 2022/23 marketing year (MY) is expected to be 23 percent below the five-year average (Figure 5) and, according to data from FAOSTAT, will be the smallest harvest in ten years. Conversely, rapeseed production is expected to be 11 percent above average. With harvesting is still underway, USDA projects that maize production in the 2022/23 MY will be just five percent below average, while sunflower seed production is projected to be 28 percent below average. In late September, the Minister of Agrarian Policy and Food stated that the total forecast harvest volume from un-occupied

Figure 4. Crop calendar for Ukraine

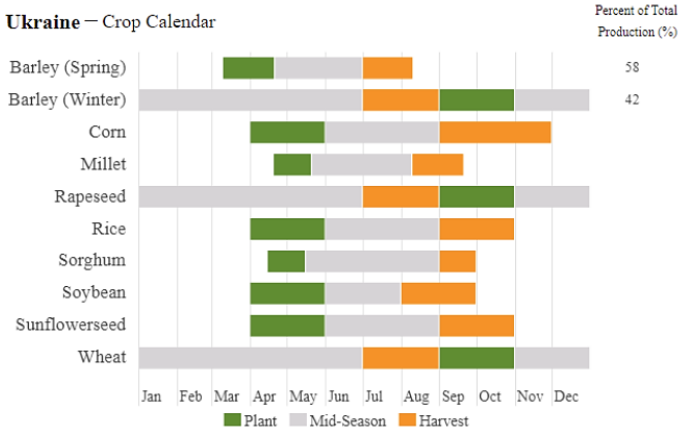
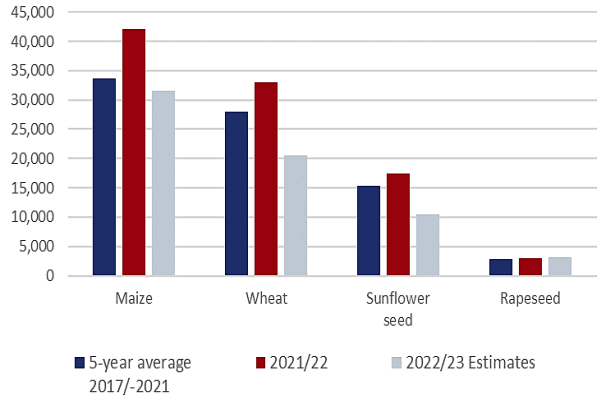


Figure 5. Projected production (thousands of tons) of maize, wheat, sunflower seed, and rapeseed in the 2022/23 marketing year compared to the previous year and the five-year average

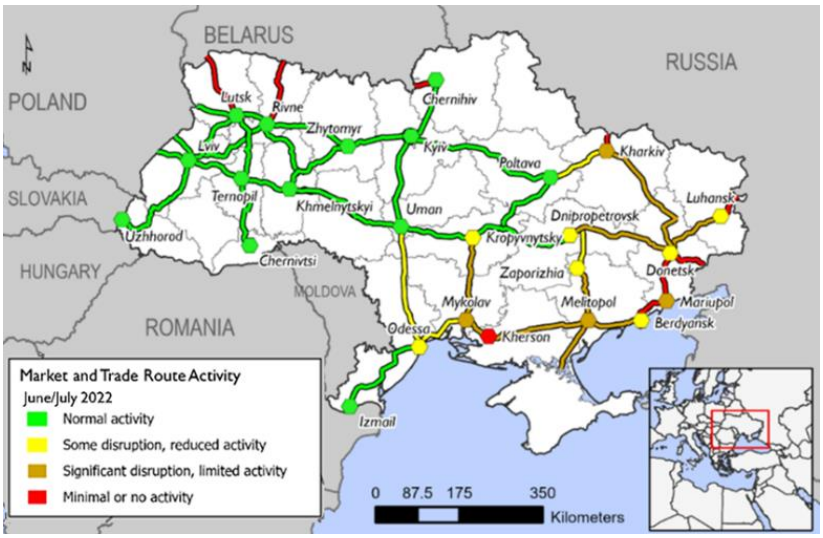


Source: *USDA*

territories was 65-67 million tons for the year. Though last year's harvest volume was 108 million tons, the Minister further noted that the drop is not significant, considering the context that last year's production reached an all-time record high and that last year's total included production harvested from territory now under occupation.

Planting for the 2022/23 winter season also started in September. However, farmers are expected to reduce planted area due to high prices of seeds and fuel, combined with challenges around selling grain, such as low producer prices due to increased domestic supply given the reduction in exports. As of mid-September, area sown in 2022 was around 80 percent of the area sown at the same time last year.

Figure 6. Market functionality map, June/July 2022



Source: *FEWS NET*

Food and fuel availability and prices

Given the availability of 26 million tons of grain and oilseed stocks at the beginning of the season, the significantly reduced export levels since the invasion, and the recently concluded harvest, food availability in Ukraine is above average and more than adequate to meet domestic consumption requirements. According to the Deputy Minister of Agrarian Policy and Food, the 19.2 million tons of recently harvested wheat is more than twice the country's annual domestic requirement. As of late August, the Ukrainian Grain association estimated that grain and oilseed stocks for MY 2022/23 would amount to 30.5 million tons.

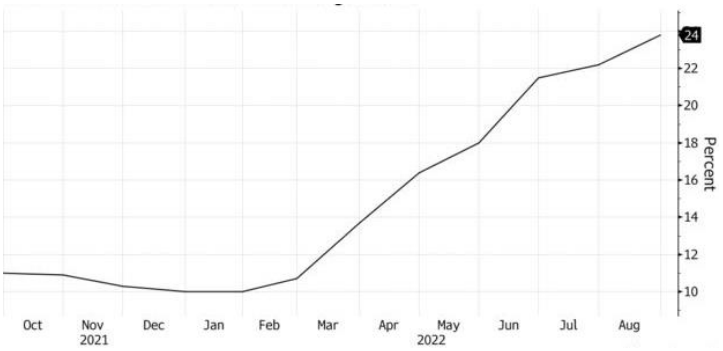
However, despite sufficient domestic food supply, supply chain disruptions continue to threaten fuel and food availability in conflict-affected areas. Due to the war, information on market functionality in Ukraine is limited. In order to better understand this, FEWS NET commissioned Premise to conduct two mobile phone surveys in Ukraine. The first was a demand-side household survey that asked 1,465 respondents about their recent shopping experiences. Data were collected from June 6 to 15, 2022. Households answered questions about the availability of staple foods, changes in staple commodity prices, the current state of market infrastructure, the availability of services, and their physical ability to access markets in the month prior to the survey. A second supply-side survey reached 256 food vendors in key markets across Ukraine. Data were collected from July 15 to August 8, 2022. Respondents answered questions about their operations and ability to restock over the past month. The results generally reflect functioning of more established/formal shops, as 92 percent of those surveyed were operating in a physical building. FEWS NET used the survey results alongside available information from secondary sources — such as news outlets, government reports, and conflict data from the Armed Conflict Location and Events Data project (ACLED) — to assess market functionality for key cities and transportation corridors (highways) (Figure 6).

The FEWS NET surveys showed that western markets and trade routes were generally functioning at normal activity levels, with high levels of availability of commodities and good physical access to stores. Conversely, eastern and southern areas were all experiencing some degree of market disruption, and households in Kherson, Mariupol, and Luhansk reported lower levels of food availability. In Kyiv, where markets are functioning close to normally, 18 of 24 respondents to the food vendor survey reported that stores were open as normal, and only four reported a few disruptions to operations. However, in Kharkhiv, all respondents noted a decrease in shops' levels of operation, with 18 of 25 noting a few disruptions, 5 citing significant disruptions, and 2 indicating that their shops were not able to open at all. In Odessa, classified as having minimal disruptions, 19 of 25 vendors who responded reported that their store was open with a few disruptions; 13 (57 percent) noted that their ability to restock was normal, 26 percent noted they had less of some items, and the remaining 17 percent could not restock some items at all. Across all vendors surveyed, the most common barrier cited was that normal suppliers have faced higher transportation costs. Out of the 256 total respondents, 34 percent noted that higher transportation costs were a barrier to restocking, followed by 25 percent noting that their regular suppliers were not open, 23 percent noting stocks were low, and 15 percent that roads were blocked.

Meanwhile, food prices remain elevated across Ukraine. Ukraine's average annual inflation rate as measured by the Consumer Price Index (CPI) has increased every month since the start of the invasion and reached 24 percent in August 2022

(Figure 7). Substantial price increases occurred for raw food products (40.8 percent year-on-year), driven by reduced supply and higher production costs, and for processed foods (23.9 percent year-on-year), driven by higher business expenses for the food sector and depreciation of the currency.

Figure 7. National average annual inflation rate as measured by the Consumer Price Index (CPI), October 2021 to August 2022



Source: *Ukrainian State Statistics Office & Bloomberg*

In May 2022, the Kyiv School of Economics began regular reporting on a Food Affordability Index (FAI), calculated as a ratio of the average salary to the price of a standard food basket. As of the update published in early September, food affordability as measured by the FAI improved throughout July after a significant deterioration in June, but remained significantly worse than before the war. In the week of July 25-29, food was 42.6 percent less affordable than before the war, 6.6 percent less affordable than in May, yet 9.7 percent more affordable than in June. The main driver of these changes in purchasing power has been changes in food prices. Improvement in food affordability in July was mainly driven by declining vegetable prices as supplies were boosted by the harvest. In the week of July 25-29, the FAI improved in all regions except in Kherson, where food affordability deteriorated by 1.6 percent compared to the previous week. No information was available for Donetsk and Luhansk in the Donbas region.

High fuel prices continue to be a main driver of elevated domestic food prices. Fuel prices increased sharply in May when the government lifted price restrictions, reaching 1.67 USD per liter, but prices fell back to 1.30 USD per liter in August. Since then, global oil prices have declined and domestic supply has improved, mainly due to improvements in supply chain functioning. These developments have slowed the pace of fuel price increases. Fuel prices in August 2022 were 68 percent higher than the same time last year, reflecting a downward trend from July, when fuel prices were 78 percent higher than the previous year, according to the National Bank of Ukraine.

Humanitarian assistance

The Ukrainian government and international organizations – including WFP, UNHCR, IOM, WHO, IFRC, and World Vision International – continue to support the emergency response in Ukraine. In September, WFP and partners assisted over 1.4 million beneficiaries with emergency in-kind food and cash assistance, including nearly 100,000 people in newly accessible areas in Kherson, Luhansk, and Kharkiv. Most of these beneficiaries received in-kind food distributions through a combination of Bread, Rapid Response Ration, and General Food Distribution programs.

UNHCR has also reported reaching over 2.1 million people across Ukraine with various forms of assistance from February 24 to September 26 as part of the response, including support to 191,980 people in hard-to-reach areas, via 303 humanitarian convoys. In late September, UNHCR continued supporting communities in recently liberated areas including Chuhuiv and Kharkiv, delivered winter items to communities in need in Mykolaivska, Kirovohradska, and Odesa *oblasts*, and delivered jerry cans to families in Mykolaiv where serious problems with water supply were reported.

Current food security outcomes

Although many Ukrainians lost income-earning opportunities following the invasion due to disruptions to supply chains, reduced business activity in conflict-affected areas, and high levels of displacement, active conflict is now localized in the south and east of the country, supply chains have since recovered, and economic activity has generally improved since April. This has facilitated the resumption of business activity and improvement in household access to income-earning opportunities in many areas. Additionally, the government has generally continued providing essential public and social services, including pension and other social welfare payments. However, significantly above-average prices of fuel, food, and other goods have increased transportation and business costs, and economic activity remains significantly depressed relative to pre-invasion levels. While employment opportunities in the military or in other essential sectors have likely increased, the availability of income-earning opportunities in many informal sectors — such as domestic work and home improvement — has likely remained depressed due to reduced purchasing power amongst those who typically hire workers as well as general uncertainty during wartime. In rural areas, many farmers are earning much less income than normal due to high prices of agricultural inputs, low producer prices, and low purchasing power among the population.

At the same time, prices of food and essential non-food items are significantly elevated, with purchasing power expected to be below-average for most Ukrainians. Many poor households are likely struggling to meet their essential needs and likely

face Stressed (IPC Phase 2) outcomes. Though many middle-income households likely remain able to meet their needs by reducing non-essential expenditures, others may be drawing upon their savings or engaging in other coping strategies consistent with Stressed (IPC Phase 2) outcomes. Worst-affected poor households — including poor farmers and poor urban households dependent on informal employment and/or lower-wage jobs — are likely facing Stressed! (IPC Phase 2!) outcomes if they are receiving food assistance or facing Crisis (IPC Phase 3) outcomes if they are not receiving assistance.

Many displaced households, both within and outside of Ukraine, are likely in immediate need of food and shelter in the initial period following displacement. However, these displaced households are generally expected to be better-off than the households that remained behind, likely because they lacked the physical or financial ability to flee. IOM survey data suggest that most displaced households and recent returnees have income sources, savings, or other resources that are likely allowing them to meet their basic needs. While many of these households have likely continued their work during their displacement due to their ability to work online or remotely, the poorest displaced (past or present) households with a limited ability to work online or remotely likely face significant disruptions to their normal income-earning and livelihood activities. As a result, the worst-affected households are likely engaging unsustainable coping strategies to meet their needs, leading to their experience of Stressed! (IPC Phase 2!) or Crisis (IPC Phase 3) levels of acute food insecurity.

According to the World Bank, the population of Ukraine was expected to be 43.5 million people in 2022 (70 percent urban and 30 percent rural). Around one-third of the population is estimated to be currently displaced, either within Ukraine or abroad. Overall, of the approximate 30 million people remaining in Ukraine, an estimated **1-2.49 million people (3-8 percent of the population in the country)** are likely to be in immediate need of humanitarian food assistance to prevent food consumption gaps and further damage to livelihoods. A disproportionate share of those in need are located in conflict-affected areas, where disruptions to income-earning activities, interruptions to supply chains, and damage to essential infrastructure are impeding access to food. However, some of the poorest households across Ukraine who are receiving insufficient social support from the government are also likely to need assistance, given the impacts of the war on their ability to earn income and given the significantly elevated prices of food and essential non-food commodities.

Current Global Impacts

Sanctions on Russia

In addition to the sanctions outlined in FEWS NET's April report, the US Department of the Treasury's Office of Foreign Assets Control (OFAC) and the US Department of State issued additional sanctions on the Russian Federation on June 28. These new measures covered 45 entities and 29 individuals and targeted Russia's defense and industrial base, military, and intelligence units. Although US sanctions do not target agricultural commodities, including fertilizer, international financial institutions are increasingly hesitant to do business with state-backed export firms. Despite record-level Russian grain harvests this year, exports at the start of the season in July and August were 22 percent lower than the same time last year.

The EU's sixth package of sanctions included an embargo on seaborne imports of Russian crude oil that will take effect on December 5, 2022. This, along with Germany and Poland voluntarily agreeing to halt pipeline imports, will cut the EU's oil imports from Russia by around 90 percent. Russian's biggest bank, Sberbank, was also removed from SWIFT in the European Union's sixth round of sanctions adopted in June. More recently, in early September, the Group of Seven (G7) announced a plan to impose a cap or maximum price on Russian oil by denying insurance to shipments priced above the cap. This move would target Russia's foreign currency inflows. In a response on September 7, President Putin threatened to halt all energy sales to countries that participate in the cap.

Both external and Russian economists have reduced their initial estimates of the magnitude of the negative impacts of sanctions on the Russian economy. Russia's Central Bank forecasts its GDP to shrink by 4 to 6 percent in 2022, down from an 8 to 10 percent forecast made in April, and the IMF now forecasts a 3.4 percent reduction, down from a 6 percent reduction expected in late August. Meanwhile, the Russian ruble is trading at its strongest level against the US dollar since 2018. The resilience of the Russian economy is at least partially attributable to interest rate hikes in the spring and fuel purchases by China and India.

Global energy markets

Rising crude oil prices spiked as the invasion ensued, at least in part due to concerns about the impacts of the conflict, such as potential sanctions on Russian exports. After significant volatility in the subsequent months, crude oil prices peaked in June and have been generally declining since then.

Global fertilizer markets

Fertilizer prices first began to increase back in mid-2020, well in advance of the invasion (Figure 8). However, following the Russian invasion of Ukraine, prices rose further and reached record levels due to uncertainty about future global availability. Since peaking around April, fertilizer prices have generally stabilized or declined due to growing stockpiles resulting from pandemic-related issues affecting supply chains and production as well as a realignment of trade flows in the aftermath of the invasion. Nevertheless, prices remain significantly elevated. As of September 2022, fertilizer prices were significantly higher than the same time last year and the five-year average.

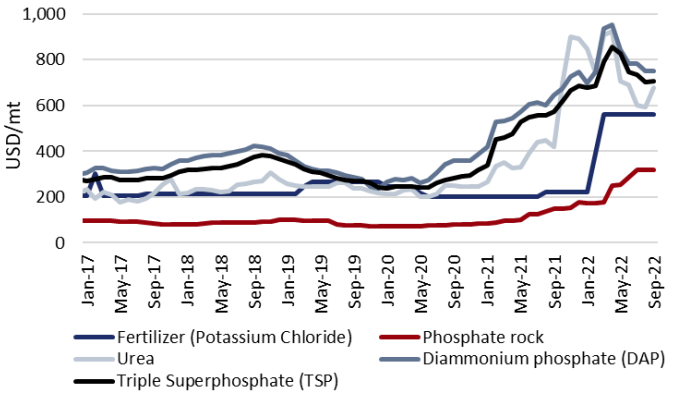
Global agricultural commodity markets

Ukraine typically contributes large shares of total global exports of wheat, maize, and sunflower oil, amongst other commodities. Due to the uncertainty caused by the invasion, global agricultural commodity prices spiked in March 2022, reaching record high levels in many cases (Figure 9). Since then, prices have decreased due to the stabilization of markets and supply chains, declining global demand given high prices, the ongoing grain harvest in the northern hemisphere, and the resumption of Ukrainian exports through three key seaports. In September 2022, the FAO Food Price Index registered its sixth consecutive monthly decline and reached near pre-invasion levels but remained 7.2 points (5.5 percent) above its value a year ago (Figure 10).

In August, international wheat prices fell by 5.1 percent from July, marking the third consecutive monthly decline due to improved production prospects in Canada, the U.S., and Russia, higher seasonal availability as harvests continued in the northern hemisphere, and the resumption of exports from Ukrainian seaports. However, uncertainty surrounding the grain deal led to a 1.5 percent increase in September. Though maize prices increased in August due to lower production prospects in the European Union and the U.S., the resumption of exports from Ukraine prevented maize prices from increasing further, and prices stabilized in September. Global sunflower oil prices also declined in August and September due to decreasing global import demand and the gradual resumption of shipments from Ukraine's seaports.

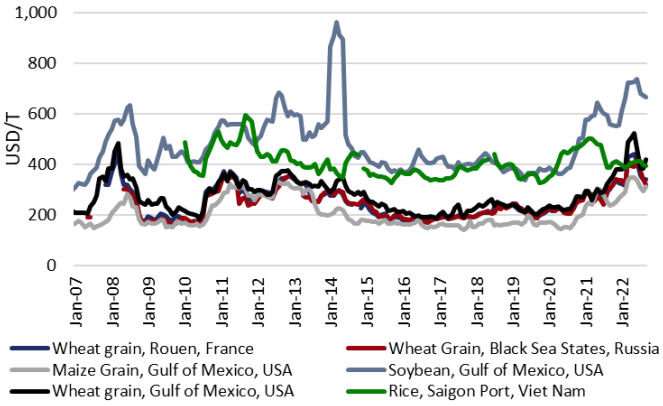
Global agricultural markets remain constrained in September due to climatic, supply chain, and geopolitical challenges. Hot and dry conditions are impacting wheat and maize crops in several major producing regions. High fuel prices are putting upward pressure on the cost of shipping and importing as logistics companies seek to recover costs. Moreover, the invasion caused financial conditions to tighten, through the weakening of many economies and indirectly via a faster-than-expected tightening of monetary policy in advanced economies. These dynamics have driven higher global consumer prices and general inflation and remain a concern particularly for countries dependent on food imports.

Figure 8. Global fertilizer prices (USD per metric ton), January 2017 to September 2022



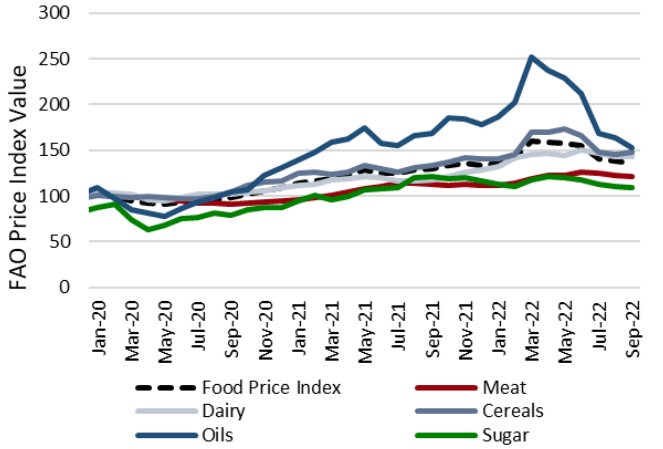
Source: *World Bank*

Figure 9. Prices of seleted agriculutral commodities, January 2007 to September 2022



Source: *World Bank, IGC, USDA.*

Figure 10. FAO Food Price Index, January 2020 to September 2022 (2014-2016=100)



Source: *FAO*

Projected scenario of an ongoing Russian invasion through May 2023

Scenario parameters

- The war in Ukraine is expected to continue through at least May 2023, and likely beyond. During this time, fighting will likely continue along the current eastern and southern front lines of Ukraine, as both Russia and Ukraine remain set on reaching their military objectives and as neither side currently has the capacity to completely force the other's retreat. A peaceful resolution, ceasefire, or peace talks remain very unlikely in the coming months.[2]
- The winter conditions will likely allow Russian forces to entrench their positions, making Ukrainian counteroffensives more difficult amid decreasing/reduced energy supplies. While Russia will likely continue to apply pressure on European energy supplies in the winter months to attempt to weaken the international alliance, it is highly likely that the U.S. will continue to supply the Ukrainian government regardless of European resolve.
- The threat of Russian missile attacks on other regions will remain persistent throughout the projection period, with notable increases around politically significant dates such as Ukraine Defender's Day (October 14); old Soviet holidays such as October Revolution Day (November 7) and Red Army Day (February 23); Christmas and New Year's; and any number of anniversaries related to Euromaidan (November-February).

Projected food security outcomes in Ukraine through May 2023

In Ukraine, farmers will conclude planting of winter crops (mainly wheat) around October. Though the Ukrainian Ministry of Agrarian Policy and Food projects that area planted with winter wheat, rye, and barley will be around 20 percent lower than last year and area planted with winter rapeseed will be similar to last year, previous projections by the Ministry have proven overly pessimistic. Furthermore, it should be noted that area planted last year was slightly above average. Overall, however, it is likely that some poor farmers will plant less than normal due to an inability to afford agricultural inputs at high prices. Additionally, area planted and associated opportunities for agricultural labor will likely be reduced in areas impacted by active conflict. Following this, as the winter progresses, agricultural activities and associated opportunities for labor will be at seasonally low levels before increasing again in the spring alongside spring planting (typically March/April to May/June) and preparations for the harvesting of winter crops (typically beginning in July).

Though the future of the conflict remains uncertain, the Ukrainian economy is expected to continue its trajectory of gradual recovery alongside significant international support and improved domestic supply chains. The Ukrainian Minister of Economic Development and Trade stated in August that the economy could expand by as much as 15.5 percent in 2023, though this is dependent on the progression of the conflict; GDP projections compiled by the Ministry range from a 0.4 percent contraction to an expansion of 15.5 percent in 2023. As such, business and income-earning activities are expected to continue recovering in most of Ukraine. Meanwhile, the resumption of some exports is likely to support improved access to income for some farmers who are able to benefit from being re-connected to global markets; however, the slow pace of exports, large stocks remaining in Ukraine, and low producer prices are likely to limit these benefits for most farmers.

Despite the overall economic recovery, the Central Bank predicts year-on-year inflation will surpass 30 percent by the end of the year, driven primarily by rising energy and food prices. Rising domestic prices of food and essential non-food commodities will further strain households' purchasing power through May 2023. Additionally, during the cold winter months, expenditure requirements for heating will seasonally increase, and any further increases in global energy prices would significantly increase this cost and strain many households' available resources. The future of global energy markets is highly uncertain given the possibility of reduced demand amid a global recession, on the one hand, and the possibility of reduced supply given reduced OPEC production and the possibility of reduced supply from Russia in retaliation for price caps, on the other hand. Any hike in energy prices beyond currently anticipated levels would further exacerbate forecast inflation in Ukraine.

Overall, some poor households currently facing Stressed (IPC Phase 2) outcomes will likely exhaust available coping strategies such as spending savings, borrowing, and reducing essential expenditures given continuous declining purchasing power and limited available income-earning opportunities. Worst-affected poor households will face Crisis (IPC Phase 3) outcomes. However, the number of households who exhaust available resources and coping capacity is expected to be limited due to expanded government social support and humanitarian interventions in the country. Overall, an estimated **1-2.49 million people** in Ukraine are likely to remain in need of humanitarian food assistance, particularly in conflict-affected areas.

[2] However, a breakthrough for either side before the winter months may change projections for negotiations. This breakthrough could take the form of Ukrainian advances and counter-offensives on the southern front towards Crimea or a renewed advance on Kyiv by Russian forces from neighboring Belarus, though significant swings in the current front lines are unpredictable.

International supply and market outlook through May 2023

Energy

Crude oil prices are forecast to decline by approximately six percent from the third to the fourth quarter of 2022 and stabilize at an average of 98.16 USD per barrel through the end of the outlook period. The anticipated decline in prices is mainly due to concerns for a global recession and reduced demand. However, despite declines, the average forecast price at the end of the outlook period is 136.7 percent higher than the average price in 2020, and 38.8 percent higher than the average price in 2021. Additionally, more recent concerns for reduced supply due to reduced OPEC production and the possibility of reduced supply from Russia due to price caps are rendering it increasingly likely that global energy prices — including oil — could increase further throughout the outlook period, in contrast to forecasts.

Natural gas prices are forecast to increase through the first quarter of 2023, mainly due to high demand from the electrical power sector, before declining at the end of the outlook period due to increased production, stabilizing at 5.43 USD per thousand cubic feet. The average price throughout the outlook period is projected to be 7.68 USD per thousand cubic feet, an increase of 89.2 percent from the 2021 average and an increase of 263.9 percent from the 2020 average. However, further price increases are possible if Russia restricts supply in response to price caps.

Fertilizer

Natural gas is one of the key production inputs for ammonia-based fertilizers. As such, increases in natural gas prices push fertilizer prices upward. In July, major fertilizer producers Yara and BASF announced that they would reduce ammonia production due to high gas prices. Further increases in natural gas prices would drive additional increases in production costs and could further constrain production and supply of fertilizers. Fertilizer producers expect potash trade flows out of Russia and Belarus to remain constrained through the remainder of 2022 and China's export quotas for phosphate and urea are not expects to be lifted in 2022. As such, higher production costs and reduced supply will likely put upward pressure on fertilizer prices throughout the outlook period.

Some farmers had already purchased fertilizer needed for last year's production season before prices spiked. In 2022/23, however, some farmers will have reduced capacity to source and afford fertilizers given reduced supply and high prices. In July, the International Fertilizer Association warned that farmers may need to cut fertilizer application rates by 7 percent over the next year due to the higher natural gas prices, which will likely affect planting decisions and raise the risk of significantly lower crop yields. Moreover, agricultural commodity prices such as grain have decreased since March while fertilizer prices have remained elevated. As such, while farmers were able to absorb the costs of above-average fertilizer prices in early 2022 as agricultural commodity prices were significantly above average, farmers' ability to afford fertilizers is decreasing.

Agricultural commodities

According to USDA, AMIS, and IGC estimates made in August, total global cereal production in MY 2022/23 is projected to be similar to last year's record production levels and the second largest on record. However, global maize production is still expected to be lower than last year (Figure 11), despite upward revisions to production estimates in August. Forecasts for wheat remain mixed, where the USDA is projecting a marginal 0.05 percent increase in production, but AMIS and the IGC are both forecasting slight decreases. Rice production forecasts are also mixed but have improved slightly due to strong global rice production prospects despite high input prices. Only soybean estimates were significantly revised upward in August due to projections of a record harvest.

Figure 11. Percent change in the forecasts (made in August 2022) for global production, exports, and closing stocks in MY 2022/23 compared to the same estimates for MY 2021/22

		USDA	AMIS	IGC
Wheat	Production	0.05%	-1.49%	-0.38%
	Closing Stocks	-3.26%	-3.36%	-1.79%
	Exports	2.95%	-0.28%	-2.03%
Maize	Production	-3.21%	-2.36%	-3.28%
	Closing Stocks	-1.65%	-4.83%	-6.36%
	Exports	-7.39%	-4.02%	-3.35%
Rice	Production	-0.24%	0.68%	-0.19%
	Closing Stocks	-3.41%	-0.06%	-1.67%
	Exports	0.13%	-0.08%	1.96%
Soybean Meal	Production	4.36%	11.20%	10.83%
	Closing Stocks	4.05%	30.88%	20.93%
	Exports	3.28%	7.60%	40.00%
Vegetable Oil	Production	3.89%	-	-
	Closing Stocks	5.95%	-	-
	Exports	10.76%	-	-

Source: *USDA, AMIS, IGC*

Russia and Ukraine typically contribute significant shares of the world's total trade in wheat, maize, and sunflower oil. Despite concerns about the impacts of sanctions on Russian exports and reduced exports from Ukraine, total global wheat exports are projected to be similar to export levels last year, though forecasts are mixed. Only maize exports are projected to decline meaningfully relative to export levels last year, largely due to the impacts of the conflict on Ukrainian production and exports.

Bumper crops in major grain producing countries and the resumption of exports from Ukraine have translated into greater optimism in futures[3] markets for a stable supply in MY 2022/23. After peaking in March and April following the invasion, futures prices for staple food commodities had returned to near pre-invasion levels by early September 2022. As of September 2022, futures prices spanning September 2022 to September 2024 for maize, soybeans, and wheat averaged 647 USD/t, 1,400 USD/t, and 833 USD/t, respectively (Figure 12). These price developments indicate that the volatility and uncertainty in global grain markets have lessened, and markets are now more oriented around normal supply and demand dynamics. However, futures prices remain above levels recorded last year. Adding to the uncertainty, President Putin announced on September 7 that he may consider restricting the flow of Ukrainian grain from Black Sea ports in response to price caps on Russian oil.

Figure 12. Futures prices (USD/t) for selected commodities in August 2022, for delivery between September 2022 and July 2024

	Maize	Soybean	Wheat
Sep-2022	$669	$1,511	$793
Mar-2023	$671	$1,428	$827
May-2023	$673	$1,430	$837
Jul-2023	$667	$1,427	$839
Sep-2023	$628	$1,368	$845
Mar-2024	$622	$1,347	$858
May-2024	$625	$1,344	$852
Jul-2024	$623	$1,342	$815

Source: *The Wall Street Jounal*

Overall, prices for all key agricultural commodities are expected to continue to trend above prices recorded last year and the five-year average throughout the outlook period. In the longer term, higher prices may persist and will depend, in part, on the duration of the conflict and the duration of sanctions. The ongoing conflict places critical energy infrastructure at risk of disruption and constrains the ability of Ukraine to export agricultural products. Although the grain deal brokered between Russia and Ukraine have allowed some exports, the total volume of agricultural exports is likely to continue to be disrupted for the duration of open hostilities.

Projected Global Food Security Impacts

The effects of the war in Ukraine have pushed the prices of staple foods and other essential commodities upward around the world. According to World Bank information from May to September 2022, inflation is high in 88.9 percent of low-income countries and 91.1 percent of lower-middle-income countries. This is significantly constraining consumer purchasing power, further reducing poor households' ability to afford food and essential non-food commodities at a time when purchasing power was already below-average in many countries due to the impacts of the COVID-19 pandemic. Additionally, high prices are impeding normal livelihoods and business activities due to high input and operating costs, resulting in reduced income-earning for many poor households. In many already food insecure countries, farmers are becoming increasingly unable to afford essential agricultural inputs.

These impacts coincide with the impacts of conflict and drought in many countries, including in the Horn of Africa, where a fifth consecutive poor rainfall season in late 2022 will continue to drive unprecedented drought conditions. Households face not only extensive crop and livestock losses due to local shocks but also steep increases in imported food prices, leading to warnings of Famine (IPC Phase 5) in Somalia.

Further, the World Bank reports that 96 percent of upper-middle-income countries are experiencing year-on-year inflation levels above 5 percent—including many with inflation in the double-digits—and that the share of high-income countries with high inflation has also increased sharply in recent months and stands at 85.7 percent. With domestic prices and acute food insecurity on the rise in many high-income countries that lack adequate social safety net programs, the attention of many traditional donor countries is focused on problems closer to home. Given these developments in donor priorities alongside atypically high global food assistance needs and high energy and commodity prices that are making food aid more expensive, **many severely food insecure countries are going without adequate assistance that is urgently needed to save lives**, and some have experienced recent reductions in already inadequate assistance levels.

In this environment of high global needs and inadequate resources for assistance, the world is also facing prospects for an impending global recession, continued high levels of inflation, and more frequent extreme weather events and water crises due to the impacts of climate change. The ongoing traditional emergency food aid response is already inadequate, with rising levels of acute food insecurity resulting in further deterioration to local economies and livelihoods and further erosion of household coping capacity. As such, the continuation of a status quo defined by a limited emergency response will not prevent but rather permit the ongoing spiral of eroding resilience and, overall, rising levels of acute food insecurity amid the compounding effects of future shocks. It is essential that donor countries urgently direct efforts toward addressing the root

[3] Commodity futures prices provide insight into market expectations concerning upcoming supply and demand conditions as futures are contracted prices for deliveries at a later date.

causes of acute food insecurity — particularly conflict and climate change — and begin to think creatively about how to address acute food needs while supporting local livelihoods and economies. It is essential that donor countries urgently direct efforts toward addressing the root causes of acute food insecurity — conflict and climate change — and begin to think creatively about how to address acute food needs while supporting local livelihoods and economies.

Country-specific impacts

FEWS NET's latest analysis projects that the number of households in need of emergency assistance to prevent food consumption gaps will remain high in the next six months, with the greatest absolute numbers of people in need in: Yemen (over 15 million), Ethiopia (10-15 million), Nigeria (7.5-9.99 million), Afghanistan (7.5-9.99 million), the DRC (7.5-9.99 million), and Somalia (5.0-7.49 million). While it is impossible to disentangle the impacts of the war in Ukraine with the impacts of other drivers, the following summarizes FEWS NET's overall concerns for acute food insecurity in its 30 monitored countries, including any key impacts of the war in Ukraine.

- **Ethiopia:** Amid the shocks of conflict and drought, households are already vulnerable to price spikes. Rising fertilizer, fuel, and food prices will lead to further declines in purchasing power, which is already low amid a 35 percent food inflation rate in August. The government reduced existing fuel subsidies in July, leading to a 30 to 40 percent increase in the price of fuel for consumers. The reduction in fuel subsidies has led to further increases in the cost of transportation and food. The rising costs of agricultural production are most significantly affecting farmers, particularly in the western half of the country. Meanwhile, labor supply is exceeding labor demand in urban areas due to both the higher costs of imported raw materials and high levels of migration from rural to urban areas. Lastly, high fuel and food costs are also affecting the humanitarian response to record-level assistance needs within Ethiopia. With positive developments in August, WFP managed to ship grain of 23,000 MT to help assist drought and conflict-affected populations in Ethiopia.

- **Somalia:** The impacts of historic drought, protracted conflict, and the Ukraine crisis on Somalia's food supply, which is primarily imported, drove food inflation in Somalia upward from 4.72 percent on an annual basis in June 2021 to 16.86 percent in June 2022, according to the Somalia National Bureau of Statistics. Domestic and regional cereal supply shortages have pushed local cereal prices to exorbitantly high levels across the south, reaching record highs in mid-2022 in some markets such as Baidoa, Bay Region. At the same time, high global fuel and shipping costs, conflict, and sub-national currency depreciation have caused price spikes in imported rice, vegetable oil, and wheat flour across most of the country. The price of a liter of diesel rose by over 50 percent in Mogadishu during the first half of this year.

- **South Sudan:** High global fuel prices, increased import taxes, the tight regional supply of local cereals, and the depreciating local currency are driving up the cost of staple food prices within South Sudan, which imports a large share of its food. Although the government resumed efforts to stabilize the exchange rate through forex sales, the local currency has lost 55-60 percent of its value since August of last year on both the official and parallel markets. As a result, the price of sorghum, the dietary mainstay, ranged from 70 to more than 670 percent above last year in major markets in August. More broadly, the cost of the minimum expenditure basket is around 15-130 percent higher than last year. Sharp increases in the total cost of fuel and food remains a significant constraint on limited financial resources for humanitarian food assistance.

- **Yemen:** High import costs are expected to continue to drive already significantly above average food and energy prices upward in the coming months, further reducing household purchasing power and straining the sustainability of local livelihoods. Given disruptions to typical import flows from Ukraine, Yemeni traders are expected to continue to source wheat from alternative markets at higher global prices. Comparatively smaller traders in areas controlled by the Internationally Recognized Government are expected to face the greatest difficulties. As of late July, traders estimated that available stocks would be sufficient to fulfill the country's consumption requirements through September, and additional wheat shipments are expected to arrive during this time.

- **Nigeria:** Macroeconomic conditions are expected to remain poor despite the increase in Nigeria's crude oil production quota and high global fuel prices. While high international oil prices have increased foreign reserves, domestic fuel shortages ad high fuel prices are also driving increased transportation and food costs, as well as higher industrial production costs, with many businesses relying on generators for power. Cooking fuel prices are also affected, placing pressure on household expenditures. Households in northern Nigeria with limited income are already heavily reliant on markets for food; further price increases will worsen their purchasing power. In addition, high fertilizer prices could drive some declines in yields for the harvest starting in October. Once households start accessing own produced food in October, market food prices are expected to somewhat decline, but will remain significantly above average.

- **Kenya:** According to the Kenya National Bureau of Statistics, national food inflation in August was 15 percent higher than last year. The high prices are reducing household purchasing power and limiting household food access. Staple food prices, particularly maize, have continued to increase due to both the impacts of the Ukraine crisis and below-average domestic crop production. In late July, to reduce costs, the government set a four-week retail price of 100 KES per 2 kg maize flour. This follows a duty waiver between May and August 2022 for maize imports. Fertilizer prices have also risen 60 to 200 percent above last year following the start of the Ukraine crisis. Although the government is subsidizing fertilizer for registered farmers (offering a quota of forty 50-kg bags of fertilizer at 2021 prices), high fertilizer and fuel prices have nevertheless caused a drop in cropping area planted.

- **Burkina Faso:** Food inflation in Burkina Faso has increased to record levels this year, exceeding 30 percent (year-on-year) during the recent lean season. Staple food prices increases are steepest in conflict-affected areas, where prices have more than doubled compared to average, leading to large reductions in household purchasing power. Fertilizer prices have almost doubled in local markets, which will likely negatively affect the production of maize for the main harvest (September-December), which accounts for about 40 percent of national production. High production areas in the south will likely be worst affected by fertilizer price spikes, where fertilizer expenditures exceed 10 percent of overall income. The latest field reports indicate that government subsidies for fertilizer purchases were both late and insufficient.

- **Madagascar:** High global prices for petrol, diesel, fertilizer, and food are expected to negatively affect food security outcomes, especially in areas of southwestern Madagascar that are concurrently affected by drought. Anticipated, below-average cassava and sweet potato harvests in the southwestern parts of the Grand South and below-average maize harvests across the South are likely to increase households' market dependence while very high staple food prices hinder affordability for households. Furthermore, staple food prices, including rice and maize, are expected to rise due to the upward revision to fuel prices in July. In the Grand South, staple food prices are projected to remain as high as double the five-year average. Humanitarian assistance has been extended through October.

- **Afghanistan:** High global prices of food, fuel, and fertilizer and disruptions to the import supply chain will likely continue to drive rising prices within Afghanistan at a time when purchasing power is already significantly below average. Afghanistan imports about half of its staple wheat supply, and most imported wheat comes from Kazakhstan, which in turn sources much of its wheat grain from Russia. On average at the national level, the price of diesel in September was more than double prices recorded in June 2022 and 81 percent higher than the same time last year. This is exerting upward pressure on food and non-food commodities prices. The cost of WFP's minimum food basket in September was 22 percent higher than the same time last year.

- **Sudan:** The Ukraine crisis continues to exacerbate Sudan's macroeconomic crisis, placing significant pressure on household purchasing power. Despite a lack of hard currency, Sudan is importing wheat through private companies. However, in late September, staple food prices such as wheat, sorghum, and millet were 250-300 percent above last year and 550-700 percent above the five-year average. wheat prices are on average around 200 percent above their respective prices in the same period of 2021. Additionally, farmers have reduced cropping area planted for the main harvest due to the high and rising cost of fuel, agricultural inputs, labor, and limited government support. These trends are occurring amid a context of conflict, which is displacing households and limiting their access to typical sources of food and income.

- **Zimbabwe:** Import requirements during this current marketing year are estimated to increase on a yearly basis because of a poor harvest, despite government and private sector initiatives to increase local production to counter supply constraints caused by uncertainties of imports from Russia and Ukraine. Meanwhile, Zimbabwe's annual consumer price inflation climbed to 285 percent in August from 256.9 percent in July. While a series of economic measures recently introduced by the government has resulted in the stabilization of parallel market foreign currency exchange rates, the prices of most goods and services are expected to remain well above normal and therefore inaccessible for poorer households. Households are turning to bargaining to procure some goods amid growing fears of shortages.

- **DRC:** While DRC primarily sources staple food supplies from neighboring countries, supplies from neighboring Rwanda, Uganda, and Tanzania have decreased amid tight regional supplies and spikes in global food prices, leading to atypically high staple food prices within the DRC, particularly for imported rice and vegetable oil. However, staple food prices have stabilized since June, in part to the season B harvests and the government's fixing of fuel prices in an attempt to lower the costs of food and transportation.

- **Niger:** While Niger sources most of its food from neighboring countries, food prices have risen due to the reduced supply of regional cereals, the global impacts of the Ukraine crisis on food and fuel prices, and domestic fuel shortages related to increased regional demand for petroleum products sourced from Niger, where pump fuel prices are lower compared

to its neighbors. In response to the diesel shortage, on August 1, 2022, the authorities raised diesel prices from 538 FCFA to 668 FCFA per liter to protect local consumption. This measure will probably lead to an increase in the price of transportation of goods, including food, which will likely place pressure on household purchasing power and access to food. However, the government's removal of import taxes, implementation of subsidies for cereals, fertilizers, and animal feed, and humanitarian food assistance will likely help mitigate the severity of food security impacts outside of conflict-affected areas, especially after the start of local harvests in October.

- **Mozambique:** Increases in wheat and fuel prices linked to the Ukraine crisis have contributed to food insecurity following a poor harvest in southern Mozambique and the shock of tropical storms Ana and Dumako and tropical cyclone Gombe. In July, available price data show retail diesel prices in Maputo Province have risen by nearly 25 percent since March, while high global wheat prices have driven up local bread prices at different rates across the country. In August, Mozambique's annual inflation increased to 12.1 percent, the highest since August 2017. However, in response to the acute rise in living costs, the government announced a set of measures in August to stimulate the economy and contain inflation. In particular, the government plans to accelerate growth by gradually reducing the tax burden to improve the purchasing power of households.

- **Guatemala:** Despite positive growing conditions during the *primera* crop production season, seasonal improvements are limited as cropped area was constrained this season by high fertilizer prices and high costs for land leases. Similar trends are expected to continue through the *postrera* season. Although seasonal cash crop labor opportunities are expected to be near-normal, local labor opportunities will be below normal. Even near-average income will not stretch as far at the market given above-average food prices. In addition, above-average rainfall during *postrera* is likely to precipitate localized crop losses, reducing own-production and increasing market reliance for poorer households.

- **Uganda:** Uganda is a surplus food producer, which insulates the national food supply from global food supply shocks. However, rising global fuel, food, and fertilizer prices are still expected to drive rising costs in the country. The price of sorghum (a key staple food), for example, increased by 17 to 55 percent across five Karamoja reference markets between February (prior to the invasion) and May 2022. High fuel prices are a significant contributing factor to high food prices, though numerous domestic factors and typical lean season trends are also playing a role. In addition, high agricultural input prices may lead to a reduction in crop yields in the coming seasons.

- **Cameroon:** Staple food prices, which are well above last year and the five-year average, have started to ease in Cameroon, likely due to tighter government price control measures and a decline in global food commodity prices between June and July. The start of the local harvest is also facilitating a seasonal decline in food prices, due to increased household availability of own-produced crops. In addition, the export ban on cereals and vegetable oils that was implemented in 2021 to cope with domestic shortages caused by the COVID-19 pandemic is still active, though significant smuggling of rice, sorghum, and maize persists across the land borders. The recent relief in staple food prices may be temporary, however, as the government has announced plans to suspend tax exemptions and tax reductions on imported rice, fish, and wheat in 2023. This move is expected to further increase consumer prices for these products.

- **Malawi:** Malawi continues to face rising inflation due to the below-average harvest, high global oil prices, and further depreciation of the MWK due to weaker export markets. Malawi's inflation rate has risen steadily in 2022, reaching 25.5 percent in August. Overall, the high inflation rate continues to decrease both urban and rural households' purchasing power, limiting household financial access to food. Furthermore, increased cereal demand from other countries such as Zimbabwe and East Africa (especially Kenya) due to regional supply shocks and the impacts of the Ukraine crisis is also influencing higher food prices locally. In August, maize prices ranged from 113 to 200 percent above last year.

- **Haiti:** Given Haiti's reliance on food imports and given the depreciation of the local currency (HTG), high global food prices are continuing to drive up local food prices, which is further limiting household food access. High global fuel prices, local fuel shortages, and disruptions to access to fuel pumps due to gang violence are further contributing to high staple food prices by increasing food distribution costs. As a result, staple food prices are higher than last year and the five-year average, and headline inflation reached 30.5 percent in July. Haiti's reliance on fertilizer from the Dominican Republic, which re-exports from Russia, has also had negative impacts on local crop production.

- **Honduras:** High agricultural input prices limited cropped area and seasonal improvements for the *primera* season and are expected to do the same during the *postrera/apante* seasons. Cash crop labor opportunities are likely to be near average, but economic gains are dampened by the high prices of staple foods and transportation. Localized losses due to above-average rainfall will also reduce some household stocks and increase household reliance on purchasing food from the market.

- **Mali:** The impacts of the Ukraine crisis has affected wheat flour and fertilizer prices, including through the higher price of fuel, which has contributed to higher transportation costs for staple food commodities. Higher prices have negatively affected household purchasing power, though some improvement is anticipated with the start of the upcoming harvest in October. Still, the low use of fertilizers due to a 70 percent increase in prices is expected to reduce crop yields, particularly for rice, cotton, and corn, for which farmers typically rely on fertilizer. The severity of impacts has been mitigated by government price controls at the supplier level. In addition, with the lifting of sanctions and access to credit, some of the suppliers' salaries have been paid to enable them to provide fertilizer to producers.
- **Angola:** The negative impacts of the Ukraine crisis in Angola have been minimal, mainly due to the beneficial effects of high oil prices on the Angolan economy. The increase in foreign reserves stemming from increased oil revenues has allowed imported food prices to generally remain at normal levels, contrary to global trends. Below-average agricultural production in the southwest due to consecutive years of severe drought is the main driver of concern within Angola and, in these areas, food prices and transportation costs for food distribution do exhibit a rising trend.
- **CAR:** High petrol, diesel, fertilizer, and food prices are expected to contribute to reduced food access within CAR. CAR has observed a severe fuel shortage since the beginning of June, mainly due to the high costs of imported hydrocarbons (oil and gas) on international markets following the Ukraine crisis, fuel storage difficulties, and supply disruptions within CAR. From March to May 2022, CAR observed 10 to 20 percent increases in the price of staple foods such as maize, peanuts, and rice. Disruptions to market supply chains, restrictions on selling cereal products and oil from Cameroon, and the impacts of the crisis in Ukraine are the main factors of high food prices.
- **Burundi:** While near-average domestic harvests are sustaining adequate food availability, headline inflation in Burundi reached 20.9 percent in September, the highest recorded since 2018. In August, staple food prices increased 25 to 60 percent compared to last year and the five average, with maize prices recording the largest increases due to increased demand and below-normal market supply. The high food prices are generally driven by rising fuel costs linked to the Ukraine crisis, resulting in increased transportation costs. In Bujumbura, fuel prices have risen 35 percent since February.
- **Chad:** Staple food prices in Chad are atypically high, driven by the impact of high global oil prices on local transportation costs and by the reduced supply of regional cereals, which is linked to poor domestic production, conflict, and the impacts of the Ukraine crisis. Although Chad has increased import volumes from Turkey, Thailand, and China to offset regional shortfalls, the availability of imported foods such as rice and vegetable oil remains below average. Fertilizer price spikes are expected to affect cotton and rice production, primarily, but these crops compose only a small portion of national production in the country.
- **Mauritania:** Despite an above-average cereal crop production forecast for 2022, Mauritania's supply of cereals and other food products still depends on imports from the international market and some cross-border flows from Mali and Senegal. Food prices remain atypically high due to the effects of high fuel prices coupled with the poor performance of the last crop production season. In Nouakchott, the prices of dry cereals, particularly wheat and pearl millet, increased by 68 percent and 52 percent, respectively, compared to the five-year average in August. This is limiting food access for poor households, though the government has dispensed assistance to facilitate access to food for poor households.
- **Lesotho:** The 2022 harvest concluded in July, and many households are currently relying on own-produced foods. Lesotho imports most of its goods from South Africa, and while the impacts of the Ukraine crisis are indirectly felt, they are not likely to be significant. In August, maize meal prices in Maseru were nearly 10 percent higher than last year, while wheat prices were nearly 20 percent higher, linked to high international prices transmitted to Lesotho from South Africa.
- **Nicaragua:** Above-average food prices are negatively affecting access to food among poorer households in Nicaragua, but domestic political and economic conditions are of higher concern. Starting in September, seasonal improvements are expected with the *primera* and *postrera* harvests and anticipated near-average labor demand for cash crop labor.
- **El Salvador:** High petrol, diesel, fertilizer, and food prices are limiting seasonal improvements; however overall economic recovery in El Salvador remains strong.
- **Rwanda:** While the ongoing harvest has replenished household food stocks in rural areas, food inflation has continued to rise due to domestic, regional, and global factors. Kigali City is the most affected, given that food inflation reached 25 percent in June and urban households purchase most of their food. The government is reportedly setting price ceilings for certain food products to mitigate the severity of impacts on household purchasing power, while implementing government subsidies to mitigate the impact of rising fertilizer prices.